

**REMARKS**

***Preliminary Matters and Status of the Application***

Prior to entry of the current amendment, claims 1-12 are all the claims pending in the Application. Claims 1, 2 and 5-10 have been withdrawn from consideration. Claims 3, 4, 11 and 12 currently stand rejected under 35 U.S.C. § 103(a). No other grounds of rejection or objection have been presented.

Per the current amendment, claim 3 has been amended and new claim 13 has been added. Applicant respectfully submits that the amendments are fully supported throughout the Specification as filed, and no new matter has been added. For example, support for the amendments to claim 3 can be found in paragraph [0022] of the Specification as filed. As a further example, Applicant submits that support for claim 13 can be found in paragraph [0022] of the Specification as filed, as well as FIG. 2 as originally filed. Applicant respectfully submits that new claim 13 patentably distinguishes over the cited art.

***Claim Rejections***

Claim 3 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over J.P. Reference 2001-179847 to Ryo (hereinafter “Ryo”) in view of U.S. Patent No. 3,853,653 to Olbert et al. (hereinafter “Olbert”), in further view of either of W.O. Reference 2002/078939 to Hirai et al. (hereinafter “Hirai”) or U.S. Patent No. 4,963,207 to Laurent (hereinafter “Laurent”), in even further view of W.O. Reference 2001/03912 to Rex et al. (hereinafter “Rex”). As noted by the Examiner, U.S. Publication 2004/0013654 is the English language application corresponding to the Hirai reference, and therefore, Applicant cites herein to the English language specification. Claim 4 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the references as applied to claim 3, in further view of U.S. Patent No. 6,182,731 to Urayama (hereinafter “Urayama”). Claim 11 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the references as applied to claim 3 in further view of U.S. Patent No. 4,985,100 to Sasaki et al. (hereinafter “Sasaki”). Finally, claim 12 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the references as applied

to claim 11, in further view of U.S. Publication 2002/0179227 to Cornet et al. (hereinafter “Cornet”). Applicant respectfully traverses the rejections for the following reasons.

Rex Fails to Disclose the Bead Removing Device as Claimed

Amended claim 3 recites, *inter alia*:

a bead removing device configured to project perpendicularly through slits provided on the disk surface, and remove the preset bead from the disk,

wherein the bead removing device extends inwardly and outwardly in a radial direction.

Applicant respectfully submits the alleged combination of references fails to disclose *at least* the above recited features of claim 3.

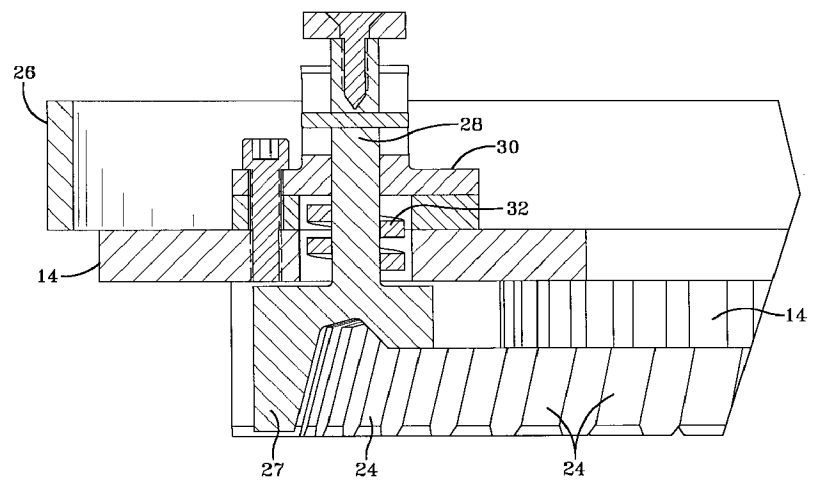
In setting forth the rejection, the Examiner concedes that Ryo, Olbert, Hirai, and Laurent fail to disclose the recited bead removing device. The Examiner relies on the Rex reference as allegedly disclosing a this recitation. Applicant respectfully disagrees.

The Rex reference is directed to a mold for forming a tire bundle. (Rex, Abstract). The mold described in Rex has an upper half and a lower half, which can be brought together so that rubber can be injection molded around a bead bundle. (Rex, page 3, lines 16-28). Included in the top of the mold are ejector fingers 27 which are spring-loaded so that when the mold is opened, the ejector fingers are urged downward from the top mold to eject the bead bundle from the upper mold portion. (Rex, page 3, lines 20-23). As depicted below, the ejector fingers comprise two prongs so that the tire bundle 23 is completely enclosed during the molding process. (See Rex, FIGS. 5 and 6, reproduced below).

Applicant respectfully submits that even if the ejector fingers are assumed *arguendo* to disclose “a bead removing device,” the ejector fingers fail to disclose, “project[ing] perpendicularly through slits provided on the disk surface,” and “extend[ing] inwardly and outwardly in a radial direction.”

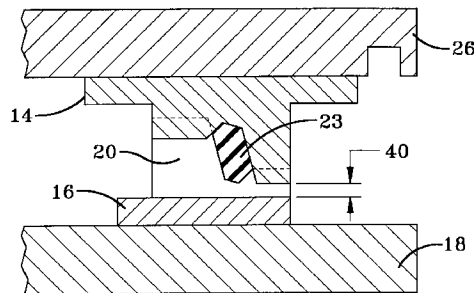
For example, the ejector fingers in Rex are narrow, not much wider in a radial direction than the bead bundle formed in the Rex device. As depicted below in FIG. 5 of Rex, the ejector fingers 27 are narrow, and are designed for a single sized tire. Furthermore, the ejector fingers

do not project through the disk surface. Instead, ejector fingers 27 are always positioned on a tire bundle side of upper finger mold half 14.



**FIG-5**

6/6



**FIG-6**

In contrast, the bead removing device of claim 3, “projects perpendicularly through slits provided on the disk surface,” and “extends inwardly and outwardly in a radial direction.” Not only are these clear structural differences between the recited bead removing device and the ejector fingers of Rex, but the recited bead removing device allows for benefits that the ejector fingers of Rex are incapable of achieving. For example, exemplary embodiments of claim 3 can be used to remove beads of different diameters due to the “extend[ing] inwardly and outwardly in a radial direction.”

**A Combination of Rex with the Other Cited References Would Render the Device Unsuitable for Its Intended Purpose**

Additionally, Applicant submits that a combination of the ejector fingers 27 of Rex with the other cited references would render the device of the proposed combination unsuitable for its intended purpose, and therefore, such a combination would not be obvious to one of ordinary skill in the art. *See In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), *see also* MPEP § 2143.01(V).

For example, the Ryo reference is directed to molding a bead filler by, “continuously annularly laminating thin rubber sheets parallel to a flat surface along a bead radial direction at the radial outside of bead wires so as to become the shape of the filler.” (Ryo, Abstract, emphasis added). Yet, when one examines the shape of the ejector fingers 27 in Rex, it would be impossible to laminate thin rubber sheets “at the radial outside of bead wires” as the lamination would be prevented by either of the prongs of ejector finger 27. It has been held that if a proposed modification of a prior art reference would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed combination. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984), *see also* MPEP § 2143.01(V). As a combination of Rex and Ryo would render the device unsuitable for its intended use, Applicant respectfully submits that there can be no motivation to make the proposed combination of references.

In view of the above, Applicant respectfully submits that claim 3 patentably distinguishes over the cited art. With regards to claims 4, 11 and 12, Applicant respectfully submits that Urayama, Sasaki, and Cornet fail to bridge the above-described deficiencies in the references cited against claim 3. Therefore, Applicant submits that claims 4, 11 and 12 distinguish over the cited art due *at least* to their dependence on claim 3, as well as their additionally recited features.

***Conclusion***

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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**23373**

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